



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/660,818

09/12/2003

Brent McKay

12275-0016

7046

40327

7590

06/28/2006

BRENT MCKAY

3901 WESTERLY PLACE #110

NEWPORT BEACH, CA 92660

EXAMINER

HOLTON, STEVEN E

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/660,818	MCKAY, BRENT	
	Examiner	Art Unit	
	Steven E. Holton	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group 1 in the reply filed on 5/30/2006 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 recites the limitation "the reverse burn mode" in line 3. There is insufficient antecedent basis for this limitation in the claim. The Examiner notes that reverse burn mode is first introduced in claims 2 and 3, but not 4. Further, claims 5-10 are rejected under 35 U.S.C. 112, second paragraph because they are dependent on claim 4.

For the purposes of examination the Examiner assumes that claim 4 recites "a reverse burn mode" and there is no lack of antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 7-12, and 14-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Weitbruch et al. (USPgpPub: 2004/0165064), hereinafter Weitbruch.

Regarding claims 1, 16, and 18, the claims are drawn to a system and related methods of operation and are considered together. Weitbruch discloses a plasma display system with a display panel (Fig. 12, element 10) a circuitry system used to communicate a video input for driving the display (Fig. 12, elements 11-18). Weitbruch further discloses the computer system operating to measure the amount of time pixels have burned and then to identify the pixels that have burned less than a specific pixel that has aged the most (paragraphs 75-80).

Regarding claims 2, 17, and 19, Weitbruch discloses providing a reverse burn mode so that differences between pixels are reduced (paragraph 75; also paragraph 74).

Regarding claim 3, Weitbruch discloses burning all other pixels than the most aged pixel to reduce the difference (paragraph 75).

Regarding claim 4, Weitbruch discloses burning the pixels in a reverse burn mode so that the average value of the active and reverse burn modes are one-half the bit depth of the pixel (paragraph 76). The Examiner notes that the average value of a normal and inverted image will be equal to one half the color of the range of the pixel. That is the normal pixel is operated at level 8 of 10, the inverted will be operated at level 2 of 10. The average of the levels will be 5 or half the able levels of the pixel.

Regarding claim 5, Weitbruch describes a system that, "determines a plurality of secondary burn values for each of the pixels such that when a pixel is driven at the secondary burn values for a corresponding plurality of reverse burn modes, an average value of the pixel for the active and reverse burn modes is approximately equal to one-half of the bit depth." The system of Weitbruch can be operated periodically (paragraphs 64-67). Before each use of the reverse burn system a secondary value would be calculated and then used. After the reverse burn, a new secondary value would be calculated for use at the next reverse burn period. The would be determining a plurality of secondary burn values. Further, the inversion system described by Weitbruch would cause the average value for the pixels of the active and reverse burn modes to be approximately equal to one-half of the bit depth.

Regarding claim 6, Weitbruch discloses driving the display with secondary values during the reverse burn mode (paragraphs 76, 78, and 79).

Regarding claim 7, Weitbruch discloses averaging the values from the active burn mode to determine an inverted image (paragraphs 87-90).

Regarding claim 8, Weitbruch discloses the secondary value being equal to the difference of the bit depth and the average value of the primary burn time (paragraph 89, the second listed mathematical formula).

Regarding claim 9, Weitbruch discloses providing a color monitor and each color having an individually calculated burn values (Fig. 12, elements 18 are for RGB, or red, green, and blue elements).

Regarding claim 10, Weitbruch discloses using a bit depth of 256 is known in the art (paragraph 6) and using the formula given by Weitbruch the average of the primary and inverted secondary images would be approximately 128-128-128.

Regarding claim 11, Weitbruch discloses using the computer to monitor the image history of the display panel (paragraph 87).

Regarding claim 12, Weitbruch discloses a plasma display panel (Fig. 12, element 10).

Regarding claim 14, the Examiner notes this is a method claim related to system provided in claims 1 and 4. Thus, the arguments applied to claims 1 and 4 can be applied to claim 14.

Regarding claim 15, the claim states "generating a conditioning input based on the secondary burn values; and providing the conditioning input to an interface to drive the display panel." Weitbruch describes a system that drives the display panel using the secondary burn values for a reverse burn period. Therefore some sort of signal that drives the display panel is inherent in the system and such a signal would read on the 'conditioning input'. Such a 'conditioning input' could also be considered to read on the

inverted image which is an input based on the secondary burn values to drive the display panel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weitbruch.

Regarding claim 13, Weitbruch discloses all of the limitations except providing a plurality of displays with the system. The Examiner notes that it would be obvious to one skilled in the art that multiple display devices could be combined in a single system as needed and that using multiple monitors would be a design choice for one skilled in the art.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goldberg (USPN: 4670784) and Grimes et al. (USPgPub: 2003/0142212) disclose methods of reducing burn-in on phosphor based display devices involving using a reverse burn image to counter the aging of pixels.

Art Unit: 2629

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
June 22, 2006

AMR A. AWAD
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Amr A. Awad', with a large, sweeping flourish at the end.